

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (currently amended): A pillar-shaped honeycomb structural body ~~mainly made of~~ comprising:

a porous ~~ceramics~~, ceramic body in which a plurality of through holes are ~~placed~~ formed in parallel with one another in ~~[[the]]~~ a length direction of the porous body and ~~[[with]]~~ a partition wall portion is interposed ~~therebetween~~ between the through holes, the porous body having an inlet side and an outlet side,

wherein said plurality of through holes ~~comprises~~ includes a group of inlet-side through holes sealed by plugs at the outlet side and a group of outlet-side through holes sealed by plugs at the inlet side, ~~whose ends the inlet-side through holes have~~ are sealed by plugs at the outlet side such that the total sum of cross section areas ~~on cross-sections~~ perpendicular to the length direction which is made relatively greater,~~;~~ and a group of the outlet-side through holes, whose ends are sealed by plugs at the inlet side such that have the total sum of cross section areas perpendicular to the length direction ~~on the cross-sections thereof~~ which is made relatively smaller, ~~supposing that the aperture rate on the inlet side is X(%) and that the total sum of thermal capacities of the plugs which seal the group of inlet-side through holes at 500°C per 11.8 cm² of the end face on the outlet side containing the group of the outlet-side through holes is represented by Y(J/K), the relationship indicated by the following inequalities (1) and (2) being satisfied.~~ and the inlet-side through holes and the plugs sealing the inlet-side through hole at the outlet side satisfy inequalities,

$$0.0157X - 0.0678 < Y < 1.15X - 5 \quad \dots (1) \text{ and}$$

$$35 \leq X \leq 60, \quad \dots (2)$$

where X represents an aperture rate on the inlet side in %, and Y represents the total sum of thermal capacities in J/K of the plugs sealing the inlet-side through holes at 500°C per 11.8 cm² of an end face of the ceramic body on the outlet side including the outlet-side through holes.

Claim 2 (currently amended): The honeycomb structural body according to claim 1, wherein ~~supposing that the total sum of thermal capacities of the plugs which seal the group of sealing the inlet-side through holes at 25°C per 11.8 cm² of the end face on the outlet side containing the group of the outlet side through holes is represented by Z(J/K), a relationship indicated by the following inequality (3) is satisfied.~~ satisfy an equality,

$$0.013X - 0.09 < Z < 0.7X - 2.5, \dots (3)$$

where Z represents the total sum of thermal capacities in J/K of the plugs sealing the inlet-side through holes at 25°C per 11.8 cm² of the end face of the ceramic body on the outlet side including the outlet-side through holes.

Claim 3 (currently amended): The honeycomb structural body according to claim 1 or 2, wherein the Y satisfies a relationship, ~~indicated by the following inequality (4) is further satisfied.~~ $0.05X - 0.55 < Y < 0.574X - 2, \dots (4)$

Claim 4 (currently amended): The honeycomb structural body according to claim 3, wherein the Z satisfies a relationship, ~~indicated by the following inequality (5) is further satisfied.~~ $0.05X - 0.55 < Z < 0.354X - 1, \dots (5)$

Claim 5 (currently amended): The honeycomb structural body according to ~~any one of claims 1 to 4~~ claim 1, wherein said porous ceramic body is porous silicon carbide.

Claim 6 (currently amended): A honeycomb structural body, wherein a sealing material layer is formed on a circumferential face of a honeycomb block that is formed by

combining a plurality of honeycomb structural bodies according to ~~any one of claims 1 to 5~~
according to claim 1 through a sealing material layer with one another.

Claim 7 (new): The honeycomb structural body according to claim 2, wherein said porous ceramic body is porous silicon carbide.

Claim 8 (new): The honeycomb structural body according to claim 3, wherein said porous ceramic body is porous silicon carbide.

Claim 9 (new): The honeycomb structural body according to claim 4, wherein said porous ceramic body is porous silicon carbide.

Claim 10 (new): A honeycomb structural body, wherein a sealing material layer is formed on a circumferential face of a honeycomb block that is formed by combining a plurality of honeycomb structural bodies according to claim 2 through a sealing material layer with one another.

Claim 11 (new): A honeycomb structural body, wherein a sealing material layer is formed on a circumferential face of a honeycomb block that is formed by combining a plurality of honeycomb structural bodies according to claim 3 through a sealing material layer with one another.

Claim 12 (new): A honeycomb structural body, wherein a sealing material layer is formed on a circumferential face of a honeycomb block that is formed by combining a plurality of honeycomb structural bodies according to claim 4 through a sealing material layer with one another.

Claim 13 (new): A honeycomb structural body, wherein a sealing material layer is formed on a circumferential face of a honeycomb block that is formed by combining a plurality of honeycomb structural bodies according to claim 5 through a sealing material layer with one another.